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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,660	11/18/2003	Herbert G. Ross JR.	ROCH-11801-US	5349

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EXAMINER
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ROJAS, BERNARD

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/715,660

Applicant(s)

ROSS, HERBERT G.

Examiner

Bernard Rojas

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 11-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Upon further consideration, a new ground(s) of rejection is made in view of Swindler et al. [US 6,089,086], that discloses the claimed gauge structure, in view of Mueller et al. [US 5,438,869], that discloses the claimed dial structure, and in further view of Thomas Jr. [US 3,859,651] that teaches magnetically biasing a reed switch.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation " said tank magnet " in line 9 of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swindler et al. [US 6,089,086] in view of Mueller et al. [US 5,438,869] and in further view of Thomas Jr. [US 3,859,651].

Claim 11, Swindler et al. discloses a gauge [figure 1a] comprising (a) a gauge assembly having (i) a gauge head [22]; (ii) a support member [24] extending from said gauge head; (iii) a transmitting shaft [26] having a first end and a second end rotatable in said support member; (iv) a tank magnet [28] attached to said first end of said transmitting shaft; (v) a float arm [30] linked to said transmitting shaft such that movement of said float arm results in rotation of said transmitting shaft; (b) a dial assembly [34] mounted on said gauge assembly having: (i) a first member [35] having a pivot pin attached thereto; (ii) a dial magnet [64] in magnetic communication with said tank magnet and which is rotatably mounted on said pivot pin.

Swindler et al. fails to teach that the dial assembly has (iii) a reed switch assembly positioned operatively adjacent to said dial.

Thomas discloses (b) a dial assembly [Figure 1] comprising: (i) a first member [10] having a pivot pin [15] attached thereto; (ii) a dial magnet [17] rotatably mounted on said pivot pin; (iii) a reed switch assembly [Figure 4] positioned operatively adjacent to said dial magnet comprising: a reed switch [36-44].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the dial assembly of Thomas in the gauge assembly of Swindler et al. in order to facilitate reading the position of the dial by providing a visual

indication on the position of the dial by means of light indicators [21-29] on the dial face [abs].

Swindler et al. in view of Thomas fails to teach (v) a bias magnet positioned such as said reed switch is held in the first position when the poles of said dial and bias magnets are in a first orientation and will be held in a second position when the poles of the dial magnet and bias magnet are in a second orientation.

Mueller et al. discloses (v) a bias magnet [I401 positioned adjacent to a reed switch that is held in the first position when the poles of the dial and bias magnets are in a first orientation and will be held in a second position when the poles of the dial magnet and bias magnet are in a second orientation [Figure 71.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a biasing magnet to the reed switches in the gauge of Thomas in order to decrease the flux density of the dial magnet required to actuate the reed switch and to easily adjust the magnetic flux density of the reed switch to accommodate for variances in its sensitivity [col. 11, lines 62 - 67 and col. 10, lines 59-64].

Claim 12, Thomas discloses a dial assembly of claim 11 further comprising a cover (encloses the reed switches) defining a receptacle for receiving said reed switch assembly [Figure 4].

Claim 13, Thomas discloses a dial assembly comprising of claim 11 wherein in said first position of said reed switch the reeds of said reed switch are in contact [Figure 4, magnet 17, switch 38].

Claim 14, Thomas discloses a dial assembly comprising of claim 11 wherein in said first position of said reed switch the reeds of said reed switch are in contact [Figure 4, magnet 17, switch 38].

Claim 15, Swindler et al. discloses a gauge [figure 1a] comprising a gauge assembly having (i) means for detecting an amount of substance in a vessel [30]; (ii) means for generating a signal [26] proportional to said amount of substance in a vessel; (iii) means for transmitting [28] said signal to a dial assembly; wherein said dial assembly comprises: (i) a first member [35] having a pivot pin attached thereto; (ii) a dial magnet [64] in magnetic communication with said tank magnet and which is rotatably mounted on said pivot pin.

Swindler et al. fails to teach that the dial assembly has (iii) a reed switch assembly positioned operatively adjacent to said dial.

Thomas discloses (b) a dial assembly [Figure 1] comprising: (i) a first member [10] having a pivot pin [15] attached thereto; (ii) a dial magnet [17] rotatably mounted on said pivot pin; (iii) a reed switch assembly [Figure 4] positioned operatively adjacent to said dial magnet comprising: a reed switch [36-44].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the dial assembly of Thomas in the gauge assembly of Swindler et al. in order to facilitate reading the position of the dial by providing a visual indication on the position of the dial by means of light indicators [21-29] on the dial face [abs].

Swindler et al. in view of Thomas fails to teach (v) a bias magnet positioned such as said reed switch is held in the first position when the poles of said dial and bias magnets are in a first orientation and will be held in a second position when the poles of the dial magnet and bias magnet are in a second orientation.

Mueller et al. discloses (v) a bias magnet [1401 positioned adjacent to a reed switch that is held in the first position when the poles of the dial and bias magnets are in a first orientation and will be held in a second position when the poles of the dial magnet and bias magnet are in a second orientation [Figure 71.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a biasing magnet to the reed switches in the gauge of Thomas in order to decrease the flux density of the dial magnet required to actuate the reed switch and to easily adjust the magnetic flux density of the reed switch to accommodate for variances in its sensitivity [col. 11, lines 62 - 67 and col. 10, lines 59-64].

Claim 16, Thomas discloses a dial assembly of claim 15 further comprising a cover (encloses the reed switches) defining a receptacle for receiving said reed switch assembly [Figure 4].

Claim 17, Thomas discloses a dial assembly comprising of claim 15 wherein in said first position of said reed switch the reeds of said reed switch are in contact [Figure 4, magnet 17, switch 38].

Claim 18, Thomas discloses a dial assembly comprising of claim 15 wherein in said first position of said reed switch the reeds of said reed switch are in contact [Figure 4, magnet 17, switch 38].

Claim 19, Swindler et al. discloses a gauge [figure 1a] comprising a gauge assembly having (i) a float for detecting an amount of substance in a vessel [30]; (ii) a transmitting shaft [26] having a first end and a second end, wherein said second end is attached to said float [figure 1a] such that the movement of said float results in rotation of said transmitting shaft; (iii) a tank magnet [28] attached to said first end of said transmitting shaft; a dial assembly comprises: (i) a first member [35] having a pivot pin attached thereto; (ii) a dial magnet [64] in magnetic communication with said tank magnet and which is rotatably mounted on said pivot pin.

Swindler et al. fails to teach that the dial assembly has (iii) a reed switch assembly positioned operatively adjacent to said dial.

Thomas discloses (b) a dial assembly [Figure 1] comprising: (i) a first member [10] having a pivot pin [15] attached thereto; (ii) a dial magnet [17] rotatably mounted on said pivot pin; (iii) a reed switch assembly [Figure 4] positioned operatively adjacent to said dial magnet comprising: a reed switch [36-44].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the dial assembly of Thomas in the gauge assembly of Swindler et al. in order to facilitate reading the position of the dial by providing a visual indication on the position of the dial by means of light indicators [21-29] on the dial face [abs].



Swindler et al. in view of Thomas fails to teach (v) a bias magnet positioned such as said reed switch is held in the first position when the poles of said dial and bias magnets are in a first orientation and will be held in a second position when the poles of the dial magnet and bias magnet are in a second orientation.

Mueller et al. discloses (v) a bias magnet [l401 positioned adjacent to a reed switch that is held in the first position when the poles of the dial and bias magnets are in a first orientation and will be held in a second position when the poles of the dial magnet and bias magnet are in a second orientation [Figure 71.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a biasing magnet to the reed switches in the gauge of Thomas in order to decrease the flux density of the dial magnet required to actuate the reed switch and to easily adjust the magnetic flux density of the reed switch to accommodate for variances in its sensitivity [col. 11, lines 62 - 67 and col. 10, lines 59-64].

Claim 20, Thomas discloses a dial assembly of claim 19 further comprising a cover (encloses the reed switches) defining a receptacle for receiving said reed switch assembly [Figure 4].

Claim 21, Thomas discloses a dial assembly comprising of claim 19 wherein in said first position of said reed switch the reeds of said reed switch are in contact [Figure 4, magnet 17, switch 38].

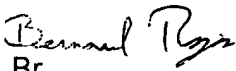
Claim 22, Thomas discloses a dial assembly comprising of claim 19 wherein in said first position of said reed switch the reeds of said reed switch are in contact [Figure 4, magnet 17, switch 38].

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00), every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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04/11/06